

ABSTRACT OF THE DISCLOSURE

A probe driving mechanism for displacement measuring apparatuses, capable of carrying out a stable, constant speed probe feeding operation without additionally providing a motor rotation detecting rotary encoder and a tachometer generator. When an output from a scale varies in accordance with the power applied to a motor, the power applied to the motor is controlled in accordance with an output from the scale. When the variation of an output from the scale becomes small even though the same level of power continues to be applied to the motor, a judgement that a probe contacts the workpiece is given, and the power applied to the motor is set smaller. When an output from the workpiece sensor varies, the power applied to the motor is controlled in accordance with one of an output from the scale and that from the workpiece sensor the speed variation of which is larger than that of the other.